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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,269	12/12/2003	Taiji Torigoe	246584US-6CONT	8642
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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
			EXAMINER TUROCY, DAVID P	
			ART UNIT	PAPER NUMBER
			1762	

DATE MAILED: 04/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

10/733,269

Applicant(s)

TORIGOE ET AL.

Examiner

David Turocy

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**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 22 March 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The reply was filed after the date of filing a Notice of Appeal, but prior to the date of filing an appeal brief. The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
- (a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ They raise the issue of new matter (see NOTE below);
- (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Detailed Action. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
- The status of the claim(s) is (or will be) as follows:
- Claim(s) allowed: \_\_\_\_\_.
- Claim(s) objected to: \_\_\_\_\_.
- Claim(s) rejected: 1-4, 6-9.
- Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Detailed Action.
12. ☒ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). 9/30/2004
13. ☐ Other: \_\_\_\_\_.

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## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendments to the claims raise new issues and limitations, which were not addressed in the previous claims and thus require further search and consideration.

The scope of the independent claims now require excellent oxidation resistance for the topcoat and the undercoat, rather than only requiring one of the undercoat and topcoat to have excellent oxidation resistance properties.

### ***Response to Arguments***

2. Applicant's arguments with respect to the information disclosure statement, filed 3/22/2005, have been fully considered and are persuasive. The information disclosure statement (IDS) submitted on 9/3/2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

3. Applicant's arguments with respect to the claims, filed 3/22/2005, have been fully considered but they are not persuasive.

4. The applicant has argued against the Khan et al reference, stating that it does not teach or even suggest a spraying velocity of 300 m/s or more or a base-material temperature of 300°C or less.

Regarding the spraying velocity of 300 m/s or more. The showing of criticality of a spray velocity of 300 m/s or more is unsubstantiated by a showing of fact. Khan makes no reference to a specific spray velocity, but inherently has a spray velocity. However, it is the examiners position that it is within the skill of one of ordinary skill in the art to select a spray velocity high enough for the particles to reach the substrate but low enough as to not cause disrupt to the process, i.e. damage the substrate, damage the spray particles, and/or damage the adhesion of the particles because they are bouncing off the substrate. In addition, it is the examiners position that the amount of time determines the formation of an oxide film or not, rather than the specific spray velocity of the particles. Therefore, since there is no showing of a specific velocity by Khan, it would have been obvious to optimize the value for the spray velocity to provide a proper repair of the substrate.

Regarding the base-material temperature, Khan makes not reference to a specific temperature, but does suggest drying the applied mixture at a moderate temperature of 20°C – 100°C. Since drying of the applied mixture occurs at such a temperature, it would have been obvious to one of ordinary skill in the art at the time of the invention to form another undercoat layer by spraying performed in the atmosphere at room temperature, prior to drying the layer at the required temperature, which lies below 300°C, as required by applicants claim.

5. The applicant has argued against the Rigney et al reference, stating that it teaches removing the entire topcoat and does not remove a damaged portion of the

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topcoat. The applicant has argued against the Rigney et al reference, stating that it does not teach or even suggest a spraying velocity of 300 m/s or more or a base-material temperature of 300°C or less.

Regarding removing the entire topcoat, the examiner agrees Rigney et al teaches of removing the entirety of the topcoat over the airfoil, as shown in Column 7, line 5. However, the claim does not limit the removal of the topcoat to only the damaged portion, the claim only requires that the damaged portion *is* removed and the removal of the entire surface, as disclosed by Rigney et al., results in the removal of the damaged portion. While the examiner agrees that expensive metals such as Pt, Rh, and/or Pd are used as material for repair, such repair only takes place at discrete, local areas without the complete removal of the entire undercoat or the removal of undercoat from adjacent areas of the coating, therefore reducing the cost of repair (Column 8, lines 10-15). The fact that a combination would not be made by businessmen for economic reasons does not mean that a person of ordinary skill in the art would not make the combination because of some technological incompatibility. See *In re Farrenkopf*, 713 F.2d 714, 219 USPQ 1 (Fed. Cir. 1983).

Regarding the spraying velocity of 300 m/s or more. The showing of criticality of a spray velocity of 300 m/s or more is unsubstantiated by a showing of fact. Rigney makes no reference to a specific spray velocity, but inherently has a spray velocity. However, it is the examiners position that it is within the skill of one of ordinary skill in the art to select a spray velocity high enough for the particles to reach the substrate but low enough as to not cause disrupt to the process, i.e. damage the substrate, damage

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the spray particles, and/or damage the adhesion of the slurry because of bouncing off the substrate. In addition, it is the examiners position that the amount of time determines the formation of a oxide film or not, rather than the specific spray velocity of the particles. Therefore, since there is no showing of a specific velocity by Rigney, it would have been obvious to optimize the value for the spray velocity to provide a proper repair of the substrate.

Regarding the base-material temperature, Rigney makes not reference to a specific temperature, and without a showing of a specific temperature for the base-material it would have been obvious to one of ordinary skill in the art at the time of the invention to form another undercoat layer by spraying performed in the atmosphere at room temperature, which lies below 300°C, as required by applicants claim.

6. Applicant has argued against both Khan et al and Rigney et al, stating that neither reference teaches a method of spraying at a particle speed of less than 300 m/s. The showing of criticality of a spray velocity of 300 m/s or less is unsubstantiated by a showing of fact. While neither reference suggests a spray velocity, both references inherently have a spray velocity. It is the examiners position that it is within the skill of one of ordinary skill in the art to select a spray velocity high enough for the particles to reach the substrate but low enough as to not cause disrupt to the process, i.e. damage the substrate, damage the spray particles, and/or damage the adhesion of the slurry because of bouncing off the substrate. In addition, it is the examiners position that the amount of time determines the formation of a oxide film or not, rather than the specific

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spray velocity of the particles. Therefore, since there is no showing of a specific velocity by Kahn or Rigney, it would have been obvious to optimize the value for the spray velocity to provide a proper repair of the substrate.

7. The applicant has argued against the Sangeeta et al. reference stating that it uses a heat treatment, under vacuum, but does not teach coating under a vacuum. While the examiner agrees that Sangeeta et al. discloses using a vacuum and/or inert gas during a heat treatment, Sangeeta et al. discloses using a vacuum and/or inert gas atmosphere during the coating process to interdiffuse the aluminum, metal and the underlying substrate, such as nickel material (Column 7, lines 52-62). The examiner only utilizes Sangeeta et al as a showing that reduction of pressure during coating is known in the art to provide diffusion of coating material into the substrate.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Turocy whose telephone number is (571) 272-2940. The examiner can normally be reached on Monday-Friday 8:30-6:00, No 2nd Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Turocy  
AU 1762



**TIMOTHY MEEKS**  
**SUPERVISORY PATENT EXAMINER**